SOL Instruction Tracking Form
Grade 4 Mathematics

Place the SOL Instruction Tracking Form after the VGLA Collection of Evidence (COE) Coversheet. Use the SOL Instruction Tracking Form to track the evidence collected for submission.

4.1 The Student will		
a)		identify the place value for each digit in a whole number expressed through millions
		orally and
		in writing;
b)		compare two whole numbers expressed through millions, using symbols (>, <, or =); and
c)		round whole numbers expressed through millions to the nearest
		thousand,
		ten thousand, and
		hundred thousand.
4.2 The student will		
a)		identify, model, and compare rational numbers (fractions and mixed numbers), using
		concrete objects and
		pictures;
b)		represent equivalent fractions; and
c)		relate fractions to decimals, using concrete objects.
4.3 The student will		
		compare the numerical value of fractions (with like and unlike denominators) having denominators of 12 or less, using concrete materials.
4.4 The student will		
a)		read decimals expressed through thousandths,
		write decimals expressed through thousandths,
		represent decimals expressed through thousandths , and
		identify decimals expressed through thousandths;
b)		round to the nearest
		whole number,
		tenth, and
		hundredth; and
c)		compare the value of two decimals, using
		symbols (<, >, or =),
		concrete materials,
		drawings, and
		calculators.
4.5 The student will		
		estimate whole-number
		sums and
		differences and
		describe the method of estimation. Students will refine estimates, using terms such as *closer to*, *between*, and *a little more than*.

4.6 The student will add and subtract whole numbers written in		
		vertical form and
		horizontal form,
		choosing appropriately between paper and pencil methods and calculators.
4.7 The student will find the product of two whole numbers when one factor has two digits or fewer and the other factor has three digits or fewer, using		
		estimation and
		paper and pencil.
	For larger products (a two-digit numeral times a three-digit numeral), estimation and calculators will be used.	
4.8 The student will		
		estimate and find the quotient of two whole numbers, given a one-digit divisor.
4.9 The student will		
a)	add and subtract with fractions having like and unlike denominators of 12 or less, using	
		concrete materials,
		pictorial representations, and
		paper and pencil;
b)	add and subtract with decimals through thousandths, using	
		concrete materials,
		pictorial representations, and
		paper and pencil; and
c)	solve problems involving addition and subtraction with fractions having like and unlike denominators of 12 or less and with decimals expressed through thousandths, using various computational methods, including	
		calculators,
		paper and pencil,
		mental computation, and
		estimation.
4.10 The student will		
a)		estimate and measure weight/mass, using actual measuring devices, and describe the results in U.S. Customary/metric units as appropriate, including
		ounces,
		pounds,
		grams, and
		kilograms;
b)		identify equivalent measurements between units within the
		U.S. Customary system (ounces and pounds) and
		metric system (grams and kilograms); and
c)		estimate the conversion of ounces and grams and pounds and kilograms, using approximate comparison e.g. 1oz. is about 28g., 1 g. is about the weight of a paper clip; 1 km. is a little more than 2lbs.
		The intent of this standard is for students to make ballpark comparisons and not to memorize conversion factors between U.S. Customary and metric units.

4.11	The student will		
a)	estimate and measure length, using actual measuring devices, and describe the results in both metric and U.S. Customary units, including		
		part of an inch (1/2, 1/4, and 1/8),	
		inches,	
		feet,	
		yards,	
		millimeters,	
		centimeters, and	
		meters;	
b)	identify equivalent measurements between units within the		
	U.S. Customary system		
		inches and feet;	
		feet and yards;	
		inches and yards and	
	metric system		
		millimeters and centimeters;	
		centimeters and meters; and	
		millimeters and meters; and	
c)	estimate the conversion of		
		inches and centimeters, using approximate comparisons *e.g. 1 in. is about 2.5 cm *,*	
		yards and meters using approximate comparisons *e.g. 1 m is a little longer than 1 yd *,*	
		miles and kilometers, using approximate comparisons *e.g. 1 mile is slightly farther than 1.5 km, or 1 km is slightly farther than half a mile.**	
	*The intent of this standard is for students to make ballpark comparisons and not to memorize conversion factors between U.S. Customary and metric units.		
4.12	The student will		
a)	estimate and measure liquid volume, using actual measuring devices and using metric and U.S. Customary units, including		
		cups,	
		pints,	
		quarts,	
		gallons,	
		milliliters, and	
		liters;	
b)		identify equivalent measurements between units within the	
		U.S. Customary system (cups, pints, quarts, and gallons) and	
		metric system (milliliters and liters); and	
c)	estimate the conversion of quarts and liters, using approximate comparisons (1 quart is a little less than 1 liter, 1 liter is a little more than 1 quart).*		
	* The intent of this standard is for students to make ballpark comparisons and not to memorize conversion factors between U.S. Customary and metric units.		

4.13	**The student will**	
	identify and describe situations representing the use of	
a)		perimeter and
		area; and
	use measuring devices to find perimeter in both	
b)		standard units of measure and
		nonstandard units of measure.
4.14	**The student will investigate and describe the relationships between and among**	
		points,
		lines,
		line segments, and
		rays.
4.15	**The student will**	
	identify and draw (using a straightedge or ruler) representations of	
a)		points,
		lines,
		line segments,
		rays, and
		angles; and
b)		describe the path of shortest distance between two points on a flat surface.
4.16	**The student will identify and draw representations of lines that illustrate**	
		intersection,
		parallelism, and
		perpendicularity.
4.17	**The student will analyze and compare the properties of**	
	two-dimensional (plane) geometric figures	
a)		circle,
		square,
		rectangle,
		triangle,
		parallelogram, and
		rhombus and
	three-dimensional (solid) geometric figures	
		sphere,
		cube, and
		rectangular solid [prism];
	identify	
b)		congruent shapes and
		noncongruent shapes; and
	investigate congruence of plane figures after geometric transformations such as reflection (flip), translation (slide) and rotation (turn), using	
c)		mirrors,
		paper folding, and
		tracing.
4.18	**The student will**	
		identify the order pair for a point and
		locate the point for an ordered pair in the first quadrant of a coordinate plane.

4.19 The student will		
a)		predict the likelihood of outcomes of a simple event, using the terms
		certain,
		likely,
		unlikely,
		impossible; and
b)		determine the probability of a given simple event, using concrete materials.

4.20 The student will collect, organize, and display data in		
		Line graphs with scale increments of one or greater than one and
		bar graphs with scale increments of one or greater than one and
		use the display to
		interpret the results,
		draw conclusions, and
		make predictions.

4.21 The student will recognize, create, and extend numerical and geometric patterns, using		
		concrete materials,
		number lines,
		symbols,
		tables and
		words.

4.22 The student will recognize and demonstrate the meaning of equality, using		
		symbols representing numbers,
		operations, and
		relations [e.g., 3 + 5=5 + 3 and 15 + (35 + 16) = (15 + 35) + 16].

Submit Quarterly to the building level administrator/designee for review:

Date Submitted/Initials	Date Submitted/Initials	Date Submitted/Initials	Date Submitted/Initials